

Leonhard Grill

List of Publications by Year in descending order

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57
papers

5,000
citations

136950

32
h-index

144013

57
g-index

61
all docs

61
docs citations

61
times ranked

4856
citing authors

#	ARTICLE	IF	CITATIONS
1	Nano-architectures by covalent assembly of molecular building blocks. <i>Nature Nanotechnology</i> , 2007, 2, 687-691.	31.5	1,187
2	Electric Field-Induced Isomerization of Azobenzene by STM. <i>Journal of the American Chemical Society</i> , 2006, 128, 14446-14447.	13.7	543
3	Conductance of a Single Conjugated Polymer as a Continuous Function of Its Length. <i>Science</i> , 2009, 323, 1193-1197.	12.6	478
4	Voltage-dependent conductance of a single graphene nanoribbon. <i>Nature Nanotechnology</i> , 2012, 7, 713-717.	31.5	298
5	Covalent on-surface polymerization. <i>Nature Chemistry</i> , 2020, 12, 115-130.	13.6	217
6	Controlling intramolecular hydrogen transfer in a porphycene molecule with single atoms or molecules located nearby. <i>Nature Chemistry</i> , 2014, 6, 41-46.	13.6	204
7	Spatial periodicity in molecular switching. <i>Nature Nanotechnology</i> , 2008, 3, 649-653.	31.5	149
8	Adsorption and Switching Properties of Azobenzene Derivatives on Different Noble Metal Surfaces: Au(111), Cu(111), and Au(100). <i>Journal of Physical Chemistry C</i> , 2008, 112, 10509-10514.	3.1	116
9	Toward a Light-Driven Motorized Nanocar: Synthesis and Initial Imaging of Single Molecules. <i>ACS Nano</i> , 2012, 6, 592-597.	14.6	110
10	Thermally and Vibrationally Induced Tautomerization of Single Porphycene Molecules on a Cu(110) Surface. <i>Physical Review Letters</i> , 2013, 111, 246101.	7.8	93
11	Conductance of a single flexible molecular wire composed of alternating donor and acceptor units. <i>Nature Communications</i> , 2015, 6, 7397.	12.8	83
12	Bottom-up Assembly of Molecular Wagons on a Surface. <i>Journal of the American Chemical Society</i> , 2010, 132, 16848-16854.	13.7	80
13	Single Molecular Wires Connecting Metallic and Insulating Surface Areas. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 9966-9970.	13.8	78
14	The Molecular Orientation of para-Sexiphenyl on Cu(110) and Cu(110) p(2Å–1)O. <i>ChemPhysChem</i> , 2007, 8, 1707-1712.	2.1	76
15	Imaging of a molecular wheelbarrow by scanning tunneling microscopy. <i>Surface Science</i> , 2005, 584, L153-L158.	1.9	74
16	Hot Carrier-Induced Tautomerization within a Single Porphycene Molecule on Cu(111). <i>ACS Nano</i> , 2015, 9, 7287-7295.	14.6	72
17	Polymerization on Stepped Surfaces: Alignment of Polymers and Identification of Catalytic Sites. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 5096-5100.	13.8	71
18	How to control single-molecule rotation. <i>Nature Communications</i> , 2019, 10, 4631.	12.8	61

#	ARTICLE	IF	CITATIONS
19	Exploring the Interatomic Forces between Tip and Single Molecules during STM Manipulation. Nano Letters, 2006, 6, 2685-2689.	9.1	60
20	Quantifying the atomic-level mechanics of single long physisorbed molecular chains. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3968-3972.	7.1	59
21	Surface-Assisted Reactions toward Formation of Graphene Nanoribbons on Au(110) Surface. Journal of Physical Chemistry C, 2015, 119, 2427-2437.	3.1	57
22	Adatoms underneath Single Porphyrin Molecules on Au(111). Journal of the American Chemical Society, 2015, 137, 1844-1849.	13.7	56
23	How to build and race a fast nanocar. Nature Nanotechnology, 2017, 12, 604-606.	31.5	56
24	Functionalized molecules studied by STM: motion, switching and reactivity. Journal of Physics Condensed Matter, 2008, 20, 053001.	1.8	54
25	Manipulating the Conformation of Single Organometallic Chains on Au(111). Journal of Physical Chemistry C, 2014, 118, 1719-1728.	3.1	54
26	Imine Derivatives on Au(111): Evidence for α -Inverted Thermal Isomerization. ACS Nano, 2011, 5, 2090-2097.	14.6	53
27	Controlled manipulation of a single molecular wire along a copper atomic nanostructure. Physical Review B, 2004, 69, .	3.2	49
28	Reversible Photoswitching and Isomer-Dependent Diffusion of Single Azobenzene Tetramers on a Metal Surface. Angewandte Chemie - International Edition, 2018, 57, 15034-15039.	13.8	42
29	Local Characterization of Ultrathin ZnO Layers on Ag(111) by Scanning Tunneling Microscopy and Atomic Force Microscopy. Journal of Physical Chemistry C, 2014, 118, 27428-27435.	3.1	37
30	Substrate-controlled linking of molecular building blocks: Au(111) vs. Cu(111). Surface Science, 2014, 627, 70-74.	1.9	37
31	Controlling the Electronic Interaction between a Molecular Wire and Its Atomic Scale Contacting Pad. Nano Letters, 2005, 5, 859-863.	9.1	34
32	Reversible and Efficient Light-Induced Molecular Switching on an Insulator Surface. ACS Nano, 2018, 12, 1821-1828.	14.6	33
33	Quantum tunneling in real space: Tautomerization of single porphycene molecules on the (111) surface of Cu, Ag, and Au. Journal of Chemical Physics, 2018, 148, 102330.	3.0	29
34	Large molecules on surfaces: deposition and intramolecular STM manipulation by directional forces. Journal of Physics Condensed Matter, 2010, 22, 084023.	1.8	28
35	Coverage- and Temperature-Controlled Isomerization of an Imine Derivative on Au(111). Journal of the American Chemical Society, 2013, 135, 4273-4281.	13.7	25
36	Steering a cycloaddition reaction via the surface structure. Surface Science, 2018, 678, 194-200.	1.9	24

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37	How Structural Defects Affect the Mechanical and Electrical Properties of Single Molecular Wires. <i>Physical Review Letters</i> , 2018, 121, 047701.	7.8	24
38	Preparation of self-ordered molecular layers by pulse injection. <i>Surface Science</i> , 2006, 600, L143-L147.	1.9	22
39	Formation and manipulation of discrete supramolecular azobenzene assemblies. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 93, 247-252.	2.3	22
40	Control of long-distance motion of single molecules on a surface. <i>Science</i> , 2020, 370, 957-960.	12.6	21
41	Covalent Assembly and Characterization of Nonsymmetrical Single-Molecule Nodes. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13724-13728.	13.8	18
42	Molecules with multiple switching units on a Au(111) surface: self-organization and single-molecule manipulation. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 394013.	1.8	13
43	Reversible Photoswitching and Isomer-Dependent Diffusion of Single Azobenzene Tetramers on a Metal Surface. <i>Angewandte Chemie</i> , 2018, 130, 15254-15259.	2.0	13
44	Thermal- vs Light-Induced On-Surface Polymerization. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22554-22561.	3.1	9
45	Observing single-atom diffusion at a molecule-metal interface. <i>Physical Review B</i> , 2016, 94, .	3.2	8
46	The Emergence of Covalent On-Surface Polymerization. <i>Advances in Atom and Single Molecule Machines</i> , 2016, , 1-21.	0.0	8
47	On-Surface Polymerization: From Polyarylenes to Graphene Nanoribbons and Two-Dimensional Networks. <i>Advances in Polymer Science</i> , 2017, , 99-125.	0.8	7
48	Force induced and electron stimulated STM manipulations: routes to artificial nanostructures as well as to molecular contacts, engines and switches. <i>Journal of Physics: Conference Series</i> , 2005, 19, 175-181.	0.4	5
49	Adsorption and Motion of Single Molecular Motors on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2020, 124, 24776-24785.	3.1	5
50	Inverted Conformation Stability of a Motor Molecule on a Metal Surface. <i>Journal of Physical Chemistry C</i> , 2022, 126, 9034-9040.	3.1	5
51	Sn/Ge(111) $\sqrt{3}\times\sqrt{3}$ -phase: characterization of image resonances by specular electron reflection and selective electron scattering. <i>Surface Science</i> , 2003, 530, 161-169.	1.9	2
52	Island formation and manipulation of prochiral azobenzene derivatives on Au(111). <i>Journal of Physics Condensed Matter</i> , 2012, 24, 354013.	1.8	2
53	Image-potential resonances studied by selective electron scattering in thin Pb(111) films and clusters on Ge(111). <i>Surface Science</i> , 2003, 537, 84-94.	1.9	1
54	Toward printing molecular nanostructures from microstructured samples in ultrahigh vacuum. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, 011801.	1.2	1

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55	Strommessung an einzelnen molekularen DrÄhten. Physik in Unserer Zeit, 2009, 40, 172-173.	0.0	0
56	Covalent Assembly and Characterization of Nonsymmetrical Singleâ€Molecule Nodes. Angewandte Chemie, 2016, 128, 13928-13932.	2.0	0
57	Electronic Structure and Properties of Graphen Nanoribbons: Zigzag and Armchair Edges. Advances in Atom and Single Molecule Machines, 2013, , 81-90.	0.0	0